

ENVIRONMENTAL ASSESSMENT

Case File No. AA-085314

AK-040-04-EA-001

Applicant: Bureau of Land Management  
Anchorage Field Office

Type of  
Action: Installation of Bridge Spanning Sullivan Creek, Alaska

Location: Section 24, T. 31 N., R. 27 W., Seward Meridian  
Lat. 62° 46.539, Long. 154° 16.300

Prepared By: Chuck Denton, Hydrologist

Preparing  
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## I. INTRODUCTION

The Iditarod National Historic Trail (INHT) was one of the first National Historic Trails designated under Public Law 95-625 in November 1978. Developed during the gold rush era, this trail historically served as a main travel artery through the Alaskan wilderness. Today, the INHT still serves as a throughway for travel and is the stage for the annual sled dog race from Anchorage to Nome. Along its route, the trail crosses numerous streams and rivers, wetlands and mountains that make up the Alaskan landscape.

### A. Purpose and Need for the Proposed Action:

The INHT crosses Sullivan Creek in Section 24, T. 31 N., R. 27 W., Seward Meridian (Latitude 62° 46.539, Longitude 154° 16.300). Due to occasional open water conditions, the crossing of Sullivan Creek has, at times, been a hazard for Iditarod Trail race teams and winter trail users alike. In recent years, volunteers constructed a bridge made from materials that have deteriorated over time resulting in a potential liability to the Bureau of Land Management (BLM) and a hazard for trail users. The installation of a new bridge at Sullivan Creek will reduce the hazards of open water crossing of the creek.

### B. Conformance With Land Use Plan:

The lands are within the boundaries of the Southwest Management Framework Plan (MFP), dated October 1981. The Proposed Action is covered under the Recreation (R-3) Activity Objective of the MFP that states BLM will “Maintain the integrity of the Iditarod National Historic Trail and associated historic and cultural sites in compliance with the National Trails Systems Act and the Iditarod National Historic Comprehensive Management Plan.” The Proposed Action also conforms with Cultural Resources (CR-1) Activity Objective which states that BLM will “Protect and preserve cultural sites from damage or destruction.”

## II. PROPOSED ACTION AND ALTERNATIVES

### A. Proposed Action:

The Proposed Action is for a private contractor to install a new bridge at the Iditarod Trail/Sullivan Creek Crossing. This bridge will be transported to the construction site via helicopter in early October 2003. The new bridge will be of steel construction 35 feet (ft) in length, with an unobstructed rail to rail width of 6 ft. Bridge footings will be constructed of treated timber requiring excavation only to the extent required for leveling. Construction crews will be transported by helicopter to the construction site. Crews will utilize the BLM Bear Creek Cabin for over night accommodations. This cabin is located seven miles from the construction site. Total construction time is estimated at two days. The existing wooden bridge will be dismantled and its materials will be transported by helicopter to the Bear Creek Cabin to be used as firewood.

B. Alternative #1:

Alternative #1 is for a contractor to install a new bridge at the Iditarod Trail/Sullivan Creek Crossing. The bridge will be flown to the landing strip in Farewell, AK and ground transported 32 miles to the site in January 2004, provided frozen soil and a sufficient snow covering exists to minimize surface disturbance. The new bridge will be of steel construction 35 ft. in length with an unobstructed rail to rail width of 6 ft. Bridge footings will be constructed of treated timber requiring excavation only to the extent required for leveling. Construction crews will be ground transported to the construction site. Crews will utilize the BLM Bear Creek Cabin for over night accommodations. This cabin is located seven miles from the construction site. Total construction time is estimated at two days. The existing bridge will be dismantled and its materials will be transported by ground to the BLM Bear Creek Cabin to be used as firewood.

C. Alternative #2 - No Action Alternative:

The No Action Alternative is to leave the present bridge in place and continue to utilize the bridge in its existing condition.

III. AFFECTED ENVIRONMENT

A. Critical Elements:

The following critical elements of the human environment are either not present or would not be affected by the Proposed Action or Alternatives:

Air Quality

Floodplains

Areas of Critical Environmental Concern

Environmental Justice

Farmlands, Prime/Unique

Native American Religious Concerns

Invasive, Non-native Species

Subsistence

T&E Species

Wastes, Hazardous and Solid

Wetlands/Riparian Zones

Water Quality, Surface and Ground

Wild and Scenic Rivers

Wilderness

1. Cultural Resources:

The remains of the Sullivan Creek Roadhouse (AHRs # MCG-014) are located within a quarter mile of the bridge location, but are outside the construction and use area.

B. Land Status:

The project area is public land administered by BLM. There are no State or Native land selections on the site.

C. Iditarod National Historic Trail:

The INHT experiences a large number of users during the winter season in the Sullivan Creek area. Most Iditarod trail users traveling north of the Alaska Range cross Sullivan Creek at the bridge site.

The BLM authorizes commercial, competitive and non-competitive events on the trail through the special recreation permit (2930) program. Competitive authorizations include sled dog racing, snowmobile racing, and human endurance competitions. These events include up to 90 sled dog teams, 100 snowmobile racers, and 100 human endurance athletes annually. Total permitted use including support personnel and participants may not exceed 2,500 user days each year.

Commercial authorizations include big game guiding and outfitting, adventure travel and commercial filming/photography. Commercial filming/photography operations are limited to 250 user days per year. Total user days may not exceed 1,100 per year for all other guides, clients, and support personnel.

Recreation activities for which a special recreation permit is not required include military training exercises, organized non-profit events and promotional activities. These activities may not exceed 250 user days per year. Use may include snowmobiles, sled dog teams, all terrain vehicles, helicopters, and fixed wing aircraft. Total user days for all activities are not to exceed 4,100 per year.

D. Visual Resources:

This area is historically known as Farewell Flats, but most recently has been known as the Farewell Burn after a large fire charred the area in 1977. The area is part of the Kuskokwim lowlands which are nearly level, with natural levees, glacial outwash plains, low rolling slopes, and piedmont hills which dominate the area. These features are very common to the physiographic region. The only visual relief in this area is the Alaska Range to the south. This area rates as a Class C under BLM's Scenic Quality Inventory and Evaluation Chart.

E. Wildlife:

Moderate to low densities of moose occur in the areas and are associated with willow shrubs and mixed forest of black spruce and birch. Predators such as wolves, black and brown bear, lynx and marten may frequent the area, but are highly mobile and would be encountered for short periods of time. An introduced

herd of about 300 bison range in the area of the Farewell Burn to the Alaska Range, and may frequent the Sullivan Creek area.

F. Soils:

Soils at the bridge site are well drained stratified silty and sandy soils on natural levees and low terraces bordering major streams. These soils can have ice rich permafrost which presents severe limitations for development.

G. Hydrology:

During the winter months in central Alaska, the water found in streams and rivers is predominately base flow. Base flow is water that enters a river from a persistent, slowly varying source. Base flow within Sullivan Creek is directly influenced by groundwater due to a high water table and geologic forces pushing the groundwater out of the aquifers into the creek. Due to the insulation characteristics of aquifers and the high specific heat capacity of water, groundwater has little variation in seasonal temperatures. These characteristics typically prevent the freezing of rivers and streams in the immediate vicinity where groundwater enters a stream. This phenomenon can result in year round open water in locations along a stream and explains why Sullivan Creek seldom freezes even during cold winter weather.

H. Vegetation:

Vegetation at the Sullivan Creek/Iditarod Trail crossing consists of a stand of mature White Spruce with an under story of alder and cottonwood. Many of the mature White Spruce are dead due to Spruce Bark Beetle infestation. Spared by the Farewell fire in 1978, this vegetation makes up the Sullivan Creek riparian corridor. Vegetation within the boundaries of the Farewell Burn area is in an early successional stage of White and Black Spruce, alder and cottonwood.

IV. ENVIRONMENTAL CONSEQUENCES

A. Impacts of the Proposed Action:

1. Critical Elements:

a. Cultural Resources:

The remains of the Sullivan Creek Roadhouse (AHRS # MCG-014) are near the bridge location. The placement of the new bridge will not impact the Sullivan Creek Roadhouse historic site.

2. Iditarod National Historic Trail:

The new Sullivan Creek bridge will increase traveler safety. The replacement of this bridge will not increase recreational use or impact the historical significance of the trail.

3. Visual Resources:  
The visual quality of the bridge site will improve slightly with the removal of the deteriorated bridge structure.
4. Wildlife:  
During construction and airlifting of the bridge, noise associated with helicopter landings and sling loading will temporarily displace wildlife from nearby, unaffected shrub and forest areas. Displaced animals may be more vulnerable to predators. These disturbances are temporary and will have no lasting effects.
5. Soils:  
Removal or disturbance of insulating vegetation at the bridge head/footing could lead to thawing of any permafrost at these locations. This could cause failure of the bridge footings and subsequent soil erosion that would allow soil to enter the stream.
6. Vegetation:  
As many as four dead spruce snags could be removed as a result of bridge placement at the crossing site. The snags are likely to fall at any time as a result of wind and weather and their loss would not be noticeable over the long term. There will be a loss of some willow and herbaceous vegetation at the footings as these areas are cleared and leveled. Trees or other vegetation removed under this project have no commercial value.

B. Impacts of Alternative #1:

1. Critical Elements:
  - a. Cultural Resources:  
Under Alternative #1, the placement of the new bridge will not impact the Sullivan Creek Roadhouse historic site.
2. Iditarod National Historic Trail:  
The impacts would be the same as under the Proposed Action.
3. Visual Resources:  
The impacts would be the same as under the Proposed Action.
4. Wildlife:  
Wildlife will be temporarily displaced over a larger area from the Farewell Airstrip to the bridge site because the bridge installation crew would be traveling overland with snow machines and a tracked vehicle to transport the bridge. This alternative would take longer and temporarily displace or

disturb wildlife for a longer period. Some slight areas of habitat may be damaged as the bridge is transported along the trail, but will recover within a short time.

5. Soils:

Impacts will be similar to the Proposed Action with the added potential of soil compaction and disturbance along the overland route.

6. Vegetation:

Additional vegetation beyond that impacted as described in the Proposed Action may be caused by vehicle passage along the overland route. The amount and type of vegetation removed or damaged over the entire trail would consist of less than 20 small standing dead black spruce snags and a number of small alder and cottonwood saplings. Removal of these materials is not expected to result in a long term impact to vegetation in the area.

C. Impacts of Alternative #2 – No Action Alternative:

1. Critical Elements:

a. Cultural Resources:

There will be no impact to the Sullivan Creek Roadhouse site.

2. Iditarod National Historic Trail:

The existing Sullivan Creek will remain a potential hazard for users.

3. Visual Resources:

The deteriorated bridge structure will remain and the visual quality in the immediate area will be slightly degraded.

4. Wildlife:

There will be little or no impacts to wildlife.

5. Soils:

Soils will not be disturbed and there will be no impacts to soils.

6. Vegetation:

Cutting or clearing of vegetation that grows in the trail will continue.

D. Cumulative Impacts:

Because of the remote location of the Sullivan Creek site and lack of permanent human habitation in the area, little activity occurs in the area. The impacts from

replacement of the bridge will not add measurably to other impacts occurring over the area.

E. Mitigation Measures:

Standard stipulations for the use of fuels, disposal of wastes and site cleanup are adequate. No additional mitigation measures are required.

V. CONSULTATION AND COORDINATION

A. List of Preparers:

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